

DEQ/Dow Framework for an Agreement

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Framework for an Agreement

Agenda

- Context/Elements
- Core Principles
- Short Term Actions
- Path Forward
- Implementation
- Questions

Framework for an Agreement (Framework)

- Executed January 20, 2005 between the State of Michigan and Dow
- Agreement to negotiate a final comprehensive resolution with Dow, the State and Federal governments
- Creates a process for engaging Saginaw River and Saginaw Bay sooner
- Expands community involvement process

Framework for an Agreement

- Prescribes Dow's interim response activities (IRAs)
 - Mitigate potential contact with soils
 - Midland and Tittabawassee River area
- Outlines approach to address and resolve with finality Dow's remedial actions and potential government claims for historic off-site releases:
 - Midland
 - Tittabawassee & Saginaw Rivers
 - Saginaw Bay

Framework: Core Principles

- Broad community involvement in the process forward
- Dow Operating License remains in full force and effect
- US EPA will provide expertise and support as needed

Framework: Short Term Actions

- Interim Response Activities (IRAs)
 - Reduce potential resident exposure in Priority 1 areas
 - ATSDR intervention level (1,000 ppt TEQ) to designate IRAs
 - Tittabawassee River area - ~ 130 residences
 - Homes/property flooded in March 2004 (7-10 year event)
 - Residential property with measured soil levels > 1000 ppt TEQ near the home
 - City of Midland - ~ 100 residences
 - Three neighborhoods nearby/downwind from Dow facility
- Distinguish from final remedy
 - Generic residential, or site-specific/area-wide, criteria

Framework: Short Term Actions

- **IRAs underway since late 2003**
 - Actions in parks along Tittabawassee River
 - Signage for fish and soil advisories
 - River bank stabilization and decking projects
 - Hand wash stations
 - Sediment clean-up support after flooding for homeowners and in parks/other public areas
 - Educational materials approved by MDEQ, distributed in community, and stocked at local libraries & township halls by Dow

Framework: Path Forward

- **Submit Remedial Investigation (RI) work plan to MDEQ by December 2005**
 - Focus near term investigations on Midland soils, the Tittabawassee River and upper ~5 miles of the Saginaw River
 - Form basis to develop remedial plan (all constituents and exposure pathways)
 - Consideration for bioavailability study
 - Independent science advisory panel
 - Potential site specific and/or area wide criteria

Framework: Path Forward

Supporting Scientific Studies:

- **MDEQ Data and Studies** – baseline & screening
 - Aquatic Ecological Risk Assessment & Modeling - Dr. Hector Galbraith
 - SITE research for alternate analytical technology (EPA)
 - Appendix IX sampling (sediments, floodplain soils)
- **Bioavailability Study** – ingestion absorption
 - Dr. Stan Casteel – University of Missouri
- **Human Exposure Study**
 - Dr. David Garabrant – University of Michigan
- **Ecological Risk Assessment**
 - Dr. John Giesy – Michigan State University
- **Other**

Framework: Path Forward

- Trust Fund(s) contemplated to address Dow's potential liabilities with respect to remainder of Saginaw River & Bay and Natural Resource Damage claims in and along the Tittabawassee & Saginaw Rivers and Saginaw Bay.
 - To be developed with broad community involvement
 - Fund projects to provide significant environmental and other benefits to local communities and public at large

Framework: Implementation

Joint MDEQ/Dow leadership coupled with community involvement throughout the path forward is essential in achieving a final outcome that best serves residents, the mid-Michigan region, and the entire state.

Questions????????